whether to use the platelets whole or as a lysate, one may consider the rate at which one desires regeneration and/or tissue healing (which may include the formation of scar tissue without regeneration or healing of a herniated or torn disc). In some embodiments the lysate will act more rapidly than the PRP (or platelet poor plasma from bone marrow). Notably, platelet poor plasma that is derived from bone marrow has a greater platelet concentration than platelet rich plasma from blood, also known as platelet poor/rich plasma, ("PP/RP" or "PPP"). PP/RP or PPP may be used to refer to platelet poor plasma derived from bone marrow, and in some embodiments, preferably PP/RP is used or PRP is used as part of the composition for disc regeneration. (By convention, the abbreviation PRP refers only to compositions derived from peripheral blood and PPP (or PP/RP) refers to compositions derived from bone marrow.) In various embodiments, the platelet plasma composition, which may or may not be in the form of a lysate, may serve one or more of the following functions: (1) to release/provide growth factors and cytokines for tissue regeneration; (2) to reduce inflammation; (3) to attract/mobilize cell signaling; (4) to initiate fibroblast repair of damaged annulus through fibroblast growth factors (FGF); (5) to stabilize disc annulus; (6) to repair annulus disc tears; (7) to stimulate revascularization to a disc; and (8) to stimulate stem cell activation. Additionally, by combining platelet therapy with stem cells, there can be synergy with respect to reducing back pain.

VI. Kits of the Disclosure

[0085] Any of the cellular and/or non-cellular compositions described herein or similar thereto may be comprised in a kit. In a non-limiting example, one or more reagents for use in methods for preparing cellular therapy may be comprised in a kit. Such reagents may include cells; media; and so forth. The kit components are provided in suitable container means.

[0086] Some components of the kits may be packaged either in aqueous media or in lyophilized form. The container means of the kits will generally include at least one vial, test tube, flask, bottle, syringe or other container means, into which a component may be placed, and preferably, suitably aliquoted. Where there are more than one component in the kit, the kit also will generally contain a second, third or other additional container into which the additional components may be separately placed. However, various combinations of components may be comprised in a vial. The kits of the present disclosure also will typically include a means for containing the components in close confinement for commercial sale. Such containers may include injection or blow molded plastic containers into which the desired vials are retained.

[0087] When the components of the kit are provided in one and/or more liquid solutions, the liquid solution is an aqueous solution, with a sterile aqueous solution being particularly useful. In some cases, the container means may itself be a syringe, pipette, and/or other such like apparatus, or may be a substrate with multiple compartments for a desired reaction.

[0088] Some components of the kit may be provided as dried powder(s). When reagents and/or components are provided as a dry powder, the powder can be reconstituted by the addition of a suitable solvent. It is envisioned that the solvent may also be provided in another container means. The kits may also comprise a second container means for containing a sterile acceptable buffer and/or other diluent.

[0089] In specific embodiments, reagents and materials include primers for amplifying desired sequences, nucleotides, suitable buffers or buffer reagents, salt, and so forth, and in some cases the reagents include apparatus or reagents for isolation of a particular desired cell(s).

[0090] In particular embodiments, there are one or more apparatuses in the kit suitable for extracting one or more samples from an individual. The apparatus may be a syringe, fine needles, scalpel, and so forth.

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